

# Claims

- [c1] An in-dash thermally controlled storage space system for a vehicle comprising:  
a housing configured to reside within a dashboard of the vehicle;  
at least one heat exchanger coupled to said housing;  
at least one thermoelectric device coupled to said at least one heat exchanger;  
a temperature sensor generating a temperature signal indicative of temperature within said housing; and  
a controller coupled to said thermoelectric device and adjusting temperature within said housing in response to said temperature signal.
- [c2] A system as in claim 1 wherein said housing is configured to couple at least a portion of at least one vehicle air control system selected from a heating system, a ventilation system, and an air-conditioning system.
- [c3] A system as in claim 2 wherein said at least one thermoelectric device is coupled to said at least one vehicle air control system such that thermal energy is transferred therebetween.

- [c4] A system as in claim 2 further comprising a thermally conductive fluid transfer device coupled to said at least one thermoelectric device such that thermal energy is transferred therebetween.
- [c5] A system as in claim 4 further comprising at least one fluid circulating device coupled to said controller, said controller adjusts temperature within said housing by circulating a fluid within said at least one vehicle air control system to transfer thermal energy between said housing and said at least one vehicle air control system.
- [c6] A system as in claim 5 wherein said fluid is selected from at least one of air and liquid.
- [c7] A system as in claim 5 wherein said at least one fluid circulating device is a device selected from at least one of a fan, a blower, a pump, a fan of said at least one vehicle air control system, a blower of said at least one vehicle air control system, and a pump of said at least one vehicle air control system.
- [c8] A system as in claim 4 wherein said thermally conductive fluid transfer device is in the form of a radiator.
- [c9] A system as in claim 4 wherein said controller adjusts temperature within said housing by circulating a fluid across said thermally conductive fluid transfer device.

- [c10] A system as in claim 4 wherein said thermally conductive fluid transfer device is at least partially contained within said at least one vehicle air control system.
- [c11] A system as in claim 1 wherein said at least one heat exchanger is contoured to support at least one object within said housing.
- [c12] A system as in claim 1 further comprising at least one control switch coupled to said controller and controlling operation of the in-dash thermally controlled storage space system.
- [c13] A system as in claim 1 further comprising a temperature control switch coupled to said controller and setting temperature within said housing.
- [c14] A system as in claim 1 further comprising:
  - a transmitter generating a control signal; and
  - a receiver coupled to said controller;
  - said controller operating the in-dash thermally controlled storage space system in response to said control signal.
- [c15] A system as in claim 14 wherein said controller in operating the in-dash thermally controlled storage space system performs a task selected from at least one of ac-

tivation, deactivation, and temperature adjustment.

- [c16] A system as in claim 1 further comprising a docking support structure coupled within said dashboard, said housing configured to be removable from said docking support structure.
- [c17] A system as in claim 1 further comprising:
  - a sensor coupled to said docking support structure; and
  - an indicator coupled to said sensor and indicating when said housing is in said docking support structure.
- [c18] A system as in claim 1 wherein said housing comprises a vent.
- [c19] A thermally controlled storage space system for a vehicle comprising:
  - a housing configured to couple at least a portion of at least one vehicle air control system;
  - at least one heat exchanger coupled to said housing;
  - at least one thermoelectric device coupled to said at least one heat exchanger;
  - a temperature sensor generating a temperature signal indicative of temperature within said housing; and
  - a controller coupled to said thermoelectric device and adjusting temperature within said housing in response to said temperature signal.

[c20] An in-dash thermally controlled storage space system for a vehicle comprising:

- a housing configured to reside within a dashboard of the vehicle and couple at least a portion of at least one vehicle air control system selected from a heating system, a ventilation system, and an air-conditioning system;
- a temperature sensor generating a temperature signal indicative of temperature within said housing;
- at least one heat exchanger coupled to said housing;
- at least one thermoelectric device coupled to said at least one heat exchanger;
- a thermally conductive fluid transfer device coupled to said at least one thermoelectric device and residing at least partially within said at least one vehicle air control system;
- at least one fluid circulating device directing a fluid to said thermally conductive fluid transfer device; and
- a controller coupled to said thermoelectric device and said at least one fluid circulating device, said controller adjusting temperature within said housing in response to said temperature signal.